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Who offer scholarships to the highly talented? The author reports results of a survey of 1,603 near-winners in the first annual National Merit Scholarship program. Findings reveal the varied sources of scholarship offers received by the near-winners and the extent to which the number and value of scholarship offers made by a particular college are related to the institution's success in attracting talented students.

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College-Scholarship Offers and the Enrollment of Talented Students

By DONALD L. THISTLETHWAITE

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College-Scholarship Offers and the Enrollment of Talented Students

By DONALD L. THISTLETHWAITE

The Findings of a Questionnaire Survey

AMERICAN colleges and universities differ markedly in the quality of students they attract. One way in which institutions can raise the level of ability in their freshman classes is to attempt to enroll larger numbers of highly able students through scholarship offers. The existence of competition among colleges and universities to recruit the intellectually gifted has been widely recognized.[1] However, little is known about the relationship between the college's financial-aid activities and its success in enrolling talented students.

The present study was undertaken to ascertain who offers scholarships to the highly talented. In addition to shedding light upon the relationship between the tendering of aid and the concentration of talent, this study is also of interest as an analysis of the ecological and structural characteristics of colleges in relation to the enrollment of talented students.

The results to be reported are based on a survey of 1,603 near-winners in the first annual National Merit Scholarship program. The findings reveal the varied sources of scholarship offers received by near-winners in a nation-wide scholarship competition; in addition, they show the extent to which the number and value of scholarship offers made by a particular college are related to the institution's success in attracting talented students.

It is estimated that 65 per cent of the 4,320 near-winners in the first National Merit Scholarship program received scholarships totaling about $1,700,000. Approximately two-thirds of the offers received by the near-winners came from colleges and universities. Over 40 per cent of all offers received from colleges came from 38 institutions; more than 70 per cent of the college offers came from 122 institutions. There appears to be a marked relationship between the college's success in enrolling talented students and both the number and the value of scholarship offers. The greater the number of offers made by a college, the more likely it is to enroll students of high ability. These results do not tell us what is cause and what is effect in the relationship, but they clearly demonstrate that some colleges enroll relatively large numbers of talented students per scholarship offer whereas others enroll relatively few. These

[1]For an interesting discussion of this subject, *see* MacDonald, Wallace, "Equalizing Scholarship Opportunities," *College Board Review*, XXXIII (Fall, 1957), pp. 29–32.

differences are associated most clearly with the level of training offered, number of volumes in the library, number of first-time enrollments, geographical location, student expenses, and type of control or affiliation.

Questionnaires were mailed to a 33-per cent random sample of the 3,250 near-winners who had responded to a previous post-card survey.[2] In addition, questionnaires were sent to approximately 970 students who had not replied to the earlier inquiry. Returns were received from 90 and 65 per cent respectively of the designated samples. The obtained sample of 1,603 respondents is biased in that it contains 65 per cent of students who did not respond to the first survey and only 30 per cent of those responding earlier. However, 95 per cent of this sample of students attended college immediately after the competition, and 65 per cent of them held freshman scholarships. These figures agree very closely with those reported for the previous sample of 3,250 Certificate of Merit winners and do not indicate any appreciable sample bias. Therefore, no attempt has been made to correct these estimates statistically.

The near-winners responding to the survey received over 2,600 offers of scholarship aid. Four out of every five applied for one or more scholarships; the average number of offers received per student was 1.7. Forty-five per cent received two or more offers, and about 25 per cent received three or more offers. Clearly, this sample of near-winners in the Merit program presents an excellent opportunity to study the financial aid offered to students of high ability.

A classification of the donors making offers to these students is shown in Table I. Two-thirds of the offers came from 523 colleges and universities. College offers will be discussed in greater detail in a later section.

TABLE I

CLASSIFICATION OF SCHOLARSHIP OFFERS RECEIVED BY 1,603 NEAR-WINNERS IN THE 1956 MERIT PROGRAM

Donor	Number and Per Cent of Offers	
	Number	Per Cent
(1)	(2)	(3)
Colleges and universities (523 institutions)	1,761	66
Governmental agencies (federal, state, municipal)	278	10
Business and industry	165	6
Scholarship foundations	66	2
High-school organizations (P.T.A., alumni, and so on)	60	2
Local community organizations	51	2
Church and religious organizations	44	2
Memorial scholarships and trust funds	25	1
Professional associations	18	1
Unidentified	198	8
Total	2,666	100

Governmental agencies (including federal, state, and municipal sources) contributed 10 per cent of the offers received by the near-winners. New York State Regents Scholarships accounted for four out of every ten of these offers, and the Naval ROTC program—which made about one out of every four of the offers—was the second-largest contributor among governmental agencies.

General Motors Corporation—the most important single source of offers from business and industry—con-

[2] Holland, John L., and Stalnaker, John M. "An Honorary Scholastic Award," JOURNAL OF HIGHER EDUCATION, XXVIII (October, 1957), pp. 361–68.

tributed slightly over a fourth of the corporation offers listed in Table I. It should be pointed out that these frequencies underestimate the amount of financial aid derived from business and industry. Many college scholarships come from business contributions. Moreover, these results do not include approximately two hundred scholarships from corporation sponsors which were awarded to winners in the 1956 Merit program.

By far the largest number of scholarship offers came from colleges and universities. The thirty-eight colleges offering ten or more scholarships to the sample of near-winners are listed in Table II. These colleges, which represent only about 7 per cent of the 523 institutions offering aid, contributed about 43 per cent of the offers.

TABLE II

FREQUENCY AND VALUE OF FINANCIAL-AID OFFERS MADE BY COLLEGES OFFERING TEN OR MORE SCHOLARSHIPS TO 1,603 TALENTED STUDENTS

Number of Offers	Number of Colleges Making Offers*	Median Value of Offers
(1)	(2)	(3)
84	1	$750
48	1	580
42	1	890
35	2	950, 910
28	1	370
26	1	660
25	1	400
24	1	930
23	1	920
22	2	570, 600
20	1	130
18	3	500, 600, 700
16	2	130, 950
15	3	360, 640, 880
14	3	370, 600, 750
13	2	110, 800
12	1	800
11	6	240, 300, 300, 625, 700, 800
10	5	125, 360, 800, 950, 1,330

*Colleges and universities in the sample include Brandeis, Brown (including Pembroke), California Institute of Technology, Carleton, Carnegie Institute of Technology, Columbia (including Barnard), Cornell, Duke, Elizabethtown, Harvard, Indiana, Iowa State, Massachusetts Institute of Technology, New York University, Northwestern, Oberlin, Park, Princeton, Radcliffe, Rensselaer Polytechnic Institute, Rice, Smith, Stanford, Swarthmore, Tulane, United States Naval Academy, Chicago, Kansas, Michigan, Missouri, Nebraska, North Carolina, Pennsylvania, Wisconsin, Virginia Interment, Washington University, Wellesley, and Yale.

TABLE III

CORRELATION BETWEEN FREQUENCY OF ENROLLMENT OF NEAR-WINNERS AND SCHOLARSHIP OFFERS

Variable Correlated with Enrollment Frequency*	Correlation Coefficient	
	121 Colleges Offering Four or More Scholarships	120 Colleges Offering Four or More Scholarships†
(1)	(2)	(3)
Number of scholarships offered by college.....	.65	.76
Total amount of scholarship money offered by college..	.69	.80

*Enrollment frequencies based on a 73-per cent sample of near-winners described by Holland and Stalnaker, *op. cit.* Since some students did not specify the amount of the offer received, the total value of the college's offers was estimated by multiplying the median value of specified offers by the number of reported offers from the institution.

†One institution, widely deviant from all others in number and value of offers, has been omitted from the correlation tables in this column.

The relationship between the college's success in enrolling talented students and the number and amount of scholarship offers made is shown in Table III. One of the 122 colleges making four or more offers has been omitted since none of the stipend values at this college were reported. In general, there is a moderately high relationship between number of offers and enrollment, and a slightly higher relationship between total value of offers and enrollment. Colleges offering more money and making

larger numbers of offers tend to enroll more near-winners. We cannot, of course, assert that the college's success in enrolling talented students is due to its financial-aid activities, since correlation does not imply causation. The 121 institutions differ in size, cost, and number of talented students applying for scholarships. All of these factors influence the college's financial-aid program and its enrollment of talented students. Scholarships can also be used, however, to attract talented students, and at least some of the differences among institutions in number and value of scholarship offers made to students of high ability may reflect attempts to maintain or to better the college's talent supply.

To find out some of the characteristics which differentiate unusually successful and unsuccessful college bidders, a further analysis was made. The difference between the college's enrollment of near-winners and the enrollment predicted on the basis of the number of scholarship offers was calculated for each of the 121 colleges referred to in Table III. (Number of offers rather than total value of offers was used since the former is less dependent on college costs.) Colleges were then ranked on the basis of these differences, or residuals, and the highest- and lowest-ranking thirds compared with respect to the twelve characteristics listed in Table IV. In general, colleges enrolling many more talented students than would be expected on the basis of number of scholarship tenders offer training on more advanced levels (M.A. or Ph.D.), have larger libraries and enrollments, are located in the New England, East North Central, or Pacific regions, are more expensive, and have no religious affiliations. The eight institutions ranking highest in "over-enrollment," as measured by

TABLE IV

CHARACTERISTICS OF COLLEGES ENROLLING MORE OR FEWER TALENTED STUDENTS THAN PREDICTED BY NUMBER OF SCHOLARSHIP OFFERS

CHARACTERISTIC*	PER CENT OF EACH GROUP HAVING INDICATED ATTRIBUTE		
	42 Colleges in Lowest Third of Residuals (Under-enrollers)	41 Colleges in Highest Third of Residuals (Over-enrollers)	Percentage Difference
(1)	(2)	(3)	(4)
Offers Master's degree or higher	33	88	55
At least 250,000 volumes in library	27	78	51
Offers Ph.D. degree	21	63	43
Opening enrollment for first-time students of 750 or more (Fall, 1956)	29	66	37
Located in New England, East North Central, or Pacific census regions	24	56	32
Estimated cost of $1,750 or more (includes $400 travel expense)	37	66	29
Religious affiliation	52	27	−25
Requires CEEB exam	21	37	16
Located in cities of 30,000 or more	46	60	14
Private control	79	68	−11
Requires SAT entrance exam	19	24	5
Coeducational	68	66	−2

*The source of information concerning all college characteristics except costs was Burckel, Christian E., *The College Blue Book* (Baltimore, Maryland: Universal Lithographers, 1956), 8th ed. A variety of sources, including college catalogues and correspondence with individual institutions, were used to estimate college costs. Enrollments were taken from *Opening Enrollment in Higher Educational Institutions, Fall, 1956*, Circular No. 496, U. S. Department of Health, Education, and Welfare.

the residuals, are Harvard, Massachusetts Institute of Technology, Stanford University, University of Michigan, Princeton, Yale University, Rice Institute, and California Institute of Technology. On the other hand, the colleges which attract relatively few talented students per scholarship offer tend to award no degree higher than the baccalaureate, have libraries with less than 250,000 volumes, are relatively small and inexpensive to attend, have religious affiliations, and are located in the Southern, Middle Atlantic, West Central, or Mountain regions of the country.

The characteristics most clearly associated with heavy enrollment of talented students are those which we would expect to attract the intellectually gifted. Colleges offering advanced degrees and having well-equipped libraries tend to be popular among near-winners. There remain, however, relatively large differences in the attractiveness of individual colleges which cannot be attributed to any of the characteristics listed in Table IV. For example, the lowest-ranking institution in the distribution of residuals has an excellent graduate school, distinguished library resources, and a large student body, and is located in the East North Central region. Explanations of the striking differences in the attractiveness of some institutions to this sample of talented students must be sought elsewhere.

College choices probably depend in large part upon the images which students and parents have of American colleges and universities. Further research is now planned to identify some of the public images affecting the talented student's choice of college. It is hoped that study of the economic and social-psychological factors involved in selecting a college will provide the basis for constructing a reasonably comprehensive theory of college choice among talented students.